IN THE CLAIMS:

Please amend claims 1 and 10 as indicated below.

A listing of the status of all claims 1-18 in the present patent application is provided below.

1 (Currently Amended). A method for mapping contacts of a programmable logic device (PLD) to contacts of an electronic component in a signal routing device having one or more layers, the method comprising:

providing the programmable logic device (PLD) having contacts; and

assigning a set of one or more contacts of the PLD to one or more respective contacts of the electronic component based at least in part on a pattern of electrically conductive traces routed from respective contacts of the electronic component via one or more channels formed at one or more layers of the signal routing device, the one or more channels being formed by arranging vias for contacts of at least the electronic component in the signal routing device.

2 (Original). The method as in Claim 1, further comprising the step of forming electrically conductive traces between the set of one or more contacts of the PLD and the respective contacts

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of the electronic component in accordance with the pattern of electrically conductive traces.

3 (Original). The method as in Claim 2, wherein one or more of the electrically conductive traces are routed to respective contacts of the PLD via one or more channels formed at one or more layers of the signal routing device.

4 (Original). The method as in Claim 1, further comprising the steps of:

determining a first pattern of electrically conductive traces routed from respective contacts of the electronic component via at least one channel of the one or more channels;

determining a contact assignment pattern for one or more contacts of the PLD based at least in part on the first pattern of electrically conductive traces; and

refining the first pattern of electrically conductive traces based at least in part on the first contact assignment pattern to generate a second pattern of electrically conductive traces routed from the respective contacts of the electronic component via at least one of the one or more channels.

5 (Original). The method as in Claim 4, wherein the one or more

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contacts of the PLD are assigned to the one or more respective contacts of the electronic component based at least in part on the second pattern of electrically conductive traces.

6 (Original). The method as in Claim 1, further comprising the step of:

assigning one or more contacts of the PLD to one or more respective contacts of a second electronic component of the signal routing device based at least in part on a pattern of electrically conductive traces routed from respective contacts of the second electronic component via one or more channels formed at one or more layers of the signal routing device.

7 (Original). The method as in Claim 1, further comprising the step of:

assigning one or more contacts of a second PLD to one or more respective contacts of the electronic component based at least in part on a second pattern of electrically conductive traces routed from respective contacts of the electronic component via one or more channels formed at one or more layers of the signal routing device.

8 (Original). The method as in Claim 1, wherein the one or more

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contacts of the PLD are assigned to the respective contacts of the electronic component by programming the PLD.

9 (Original). The method as in Claim 1, wherein the electronic component includes one of a group consisting of: a programmable logic device (PLD) and an application specific integrated circuit (ASIC).

10 (Currently Amended). A method for mapping contacts of a programmable logic device (PLD) to contacts of an electronic component in a signal routing device having one or more layers, the method comprising:

providing the programmable logic device (PLD) having contacts;

determining a first pattern of electrically conductive traces routed from respective contacts of the electronic component via one or more channels formed at one or more layers of the signal routing device;

determining a first contact assignment pattern for one or more contacts of the PLD based at least in part on the first pattern of electrically conductive traces;

refining the first pattern of electrically conductive traces based at least in part on the first contact assignment

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pattern to generate a second pattern of electrically conductive traces routed from the respective contacts of the electronic component via one or more channels formed at one or more layers of the signal routing device; and

determining a second contact assignment pattern for one or more contacts of the PLD based at least in part on the second pattern of electrically conductive traces;

wherein the one or more channels are formed by arranging vias for contacts of at least the electronic component in the signal routing device.

11 (Original). The method as in Claim 10, further comprising the step of programming the PLD to assign contacts based at least in part on the second contact assignment pattern.

12 (Original). The method as in Claim 10, further comprising the steps of:

refining the second pattern of electrically conductive traces based at least in part on the second contact assignment pattern to generate a third pattern of electrically conductive traces routed from the respective contacts of the electronic component via one or more channels formed at one or more layers of the signal routing device; and

determining a third contact assignment pattern for one or more contacts of the PLD based at least in part on the third pattern of electrically conductive traces.

13 (Original). The method as in Claim 10, further comprising the step of programming the PLD based at least in part on the third contact assignment pattern.

14 (Original). The method as in Claim 10, wherein the electronic component includes one of a group consisting of: a programmable logic device and an application specific integrated circuit (ASIC).

15 (Previously Presented). A signal routing device having one or more layers and further comprising:

an electronic component having a plurality of contacts;

a programmable logic device (PLD) having a plurality of contacts; and

a plurality of electrically conductive traces connecting contacts of the PLD to respective contacts of the electronic component, the plurality of electrically conductive traces routed from the respective contacts of the electronic component via one or more channels formed at one or more layers of the

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signal routing device;

wherein the one or more contacts of the PLD are assigned based at least in part on a pattern formed by the electrically conductive traces routed from the respective contacts of the electronic component via the one or more channels, wherein the one or more channels are formed by arranging vias for contacts of at least the electronic component in the signal routing device.

16 (Original). The signal routing device as in Claim 15, wherein contacts of the PLD are assigned to the respective contacts of the electronic component by programming the PLD.

17 (Original). The signal routing device as in Claim 15, wherein the electronic component includes one of a group consisting of: a programmable logic device and an application specific integrated circuit (ASIC).

18 (Original). The signal routing device as in Claim 15, wherein the electrically conductive traces are routed to the respective contacts of the PLD via one or more channels formed at one or more layers of the signal routing device.